



Official Minutes from the April 11, 2019 MCC Advisory Council Meeting

Millennium Challenge Corporation
Franklin Court, Suite 700, Rooms A and B
1099 14th Street, NW, Washington DC
April 11, 2019
9:00 am – 1:30 pm

Agenda

8:30 am	Coffee and pastries
9:00 am	Call to Order and Welcome Anthony Welcher, Vice President, Department of Compact Operations
9:10 am	Conversation with MCC Leadership Cynthia Huger, Acting Head of Agency, VP Administration and Finance
9:15 am	Introduction and Overview of Meeting Advisory Council Co-Chairs: Mini Roy and Nilmini Rubin
9:30 am	Regional Compact: Progress to Date Alicia Robinson-Morgan, Managing Director, Africa David Weld, Regional Compact Development Team Lead
10:00 am	Break

10:15 am	Burkina Faso: Compact Development Review Michael Simsik, Compact Development Team Lead Zaidoon Khouri, Director, Finance and Investment Team Kate Iovanna, Associate Director, Energy and Power Group
11:45 am	Concluding Remarks/House Keeping Alex Dixon, Practice Lead/Senior Director, Finance, Investment and Trade
11:55 am	Opportunity for Public Comment Meeting Adjourns
12:00 pm	Lunch Service
12:15 pm	Working Lunch: Sub-Committee Breakouts [Subcommittee Members Only] Blended Finance Subcommittee Alex Dixon, Practice Lead/Senior Director, Finance and Investment Team Bert Bossar, Associate Director, Finance and Investment Team Power Subcommittee Sam Kwon, Practice Lead/Senior Director, Energy and Power Group
1:30 pm	Subcommittee Meetings Adjourn

Call to Order and Welcome – Introduction of Members

Alex Dixon, MCC's Practice Lead/Senior Director (PLSD) for Finance, Investment and Trade, opened the meeting with a greeting to the MCC Advisory Council members who were in attendance. He thanked the members for their participation and passed the floor to Cynthia Huger.

Update from MCC Leadership

Cynthia Huger, VP Administration and Finance and Head of Agency (HOA), started the session by welcoming the new co-chairs (Nilmini Rubin and Mini Roy) and the rest of the council. She shared that

MCC would like to take advantage of the Council's experience as the agency grows and is excited to leverage the knowledge in the room for the agency's success.

HOA Huger noted that the MCC Board of Directors selected Indonesia, Malawi, and Kosovo as Compact eligible in December 2018. At the same time, Ethiopia and the Solomon Islands were selected as Threshold eligible. Following these selections, MCC VPs visited the newly eligible countries and HOA Huger visited Togo, Benin, and Ethiopia. HOA Huger noted that these were productive visits and that MCC was well-received in each country. In addition to these visits, HOA Huger shared that MCC is working to collaborate with the new United States International Development Finance Corporation (DFC) and other US agencies to support the USG's whole of government approach to development.

HOA Huger noted that concurrent regional compacts are a new and exciting opportunity for MCC. She introduced David Weld, Regional Country Team Lead, and Alicia Robinson-Morgan, Managing Director for Africa in the Department of Compact Operations (DCO), to provide further details. Moving to describe the White House Women's Economic Empowerment Initiative, HOA Huger noted that, prior to his departure from MCC, MCC's former Chief Operating Officer, Jonathan Nash, attended the White House launch with MCC beneficiary Nino Zambakhidze of Georgia and that MCC looks forward to continuing to support women's empowerment and entrepreneurship. HOA Huger introduced Anthony Welcher, MCC's Vice President for the Department of Compact Operations to offer comments as well.

Department of Compact Operations VP Welcher thanked Mini Roy and Nilmini Rubin for their time and efforts as co-chairs and thanked past chairs, Tim Docking and Mima Nedelcovych, for their commitment to the Advisory Council. He noted his interest in the work of the Advisory Council and that he looks forward to working with each member. DCO VP Welcher then turned to members for brief introductions, given that this was his first time interacting with the members.

Introduction and Overview of Meeting

Nilmini Rubin noted the success of the 2017 blended finance event organized by Advisory Council member Alex Sarac and the draft letter from the Advisory Council to the incoming Chief Executive Officer (CEO), which MCC has indicated were helpful initiatives. Rubin posed the question of what new initiatives the Council could suggest to MCC, given changes within the agency and in MCC target countries.

Aubrey Hruby commented that draft letter topics were still relevant, particularly in light of the Prosper Africa Initiative. In particular, the road shows and investment missions noted in the letter speak to the goals of Prosper Africa.

Mima Nedelcovych added that Prosper Africa can tie into current discussions with the DFC. The DFC has a higher capacity and focus on strategic countries, but boots on the ground are needed for origination. New partnerships will be needed to create that pipeline; MCC's work can be additive. The Advisory Council should also make the case that a confirmed CEO is needed.

Tim Docking commented that the DFC is transformational and the biggest thing in the US development landscape since the creation of USAID. Having previously done work with OPIC, he realizes they do not have a long runway between now and the next fiscal year. He inquired regarding MCC's interface with the DFC and expressed hope that MCC plans to leverage this new opportunity. He noted precedents will be formed and policies will be written in short order, and MCC should lean into this opportunity, particularly given that David Bohigian is a supporter of MCC's mission. He also commented on the progress of the Global Fragility Act, which currently appears to have bipartisan support through Senators Coons and Graham, and asked what role MCC could have.

Alexander Dixon thanked the Advisory Council for their comments and introduced Managing Director (MD) Alicia Robinson-Morgan and Regional Country Team Lead (RCTL) David Weld.

Regional Compact: Progress to Date

[MCC Advisory Council Regional Presentation FINAL](#)

MD Alicia Robinson-Morgan and RCTL David Weld presented progress on regional investment opportunities with five current compact partners in West Africa. MD Robinson-Morgan noted the five countries selected as eligible are Benin, Burkina Faso, Côte d'Ivoire, Ghana, and Niger. She highlighted the importance of regional integration for the creation of larger markets, increased private investment, and greater economies of scale. RCTL Weld emphasized that concurrent regional compacts represent MCC's third line of business and asked that the Advisory Council provide feedback that can support MCC's successful engagement. He highlighted outcomes from high-level missions to the eligible country partners and noted that the project will seek linkages to other regional investments.

Florie Liser commented that MCC should link projects in soft and hard infrastructure, and tie infrastructure projects to trade facilitation initiatives. MCC should structure projects to link to ongoing trade facilitation agreements in those five countries. She posed a question to the presenters regarding what countries have done to eliminate red tape and facilitate cross-border trade.

Patricia Sheikh noted that within trade facilitation initiatives, MCC should identify sectors that would provide the greatest benefit to the population. Project impact on high-value sectors should be analyzed in addition to decisions on project type (i.e. power or transportation).

Nilmini Rubin noted that the reason the MCC Modernization Act was combined with the AGOA bill was to challenge MCC's concurrent regional projects to have an impact on AGOA-eligible countries and programs – regional integration is key to trade and the legislation envisioned that.

Mima Nedelcoyich mentioned the important part of trade facilitation is that MCC comes with a large funding envelope, which helps governments change needed policies. He noted Afreximbank has been a big player in African trade and hopes to see greater involvement with them.

Aaron Bielenberg posed a question on the governance model for the project. He described seeing tech innovation in the customs space to facilitate, track, and create revenue streams for projects. He noted that tech integration in collections is very political but key for success.

Joe Dougherty noted that the presenter mentioned a pair of countries and asked whether current plans for regional compacts focus on pairs of countries or more.

David Weld responded that MCC seeks the most viable project and if more countries are involved, they will all need to be on the same timeline. He expressed a desire to create a pipeline for future regional projects, so while there may be one initial project, MCC is building a pipeline that may include others.

Stephen Groff congratulated MCC on moving forward on this initiative and supports the cornerstone investment approach. He pointed out that the Asian Development Bank has led many successful integration projects, which have shown that the policy side is important, but tangible progress on infrastructure is also critical. He emphasized that a strong coordinating body across government with those closest to fiscal decisions, such as the Ministry of Finance, is necessary for project success. Anchoring in the Ministry of Finance can help MCC coordinate opportunities and hold the purse strings. He recommends that MCC look for a Ministry of Finance based coordination mechanism in all partner countries.

Hector Morales noted that Latin America has many regional integration initiatives that can provide lessons learned. The Pacific Alliance and Central American regional initiatives have created financial integration, physical integration for energy and transport, and trade and customs cooperation. He emphasized that these initiatives started with financial integration before focusing on transmission, which was more politically viable due to local demand for energy. Transmission projects provided strong social impact through energy to schools, hospitals, and more remote areas. He recommends speaking to these actors. He pointed to Stephen Groff's comment as a critical point; in his experience, the Minister of Finance manages overall funding and MCC or a multilateral will need that link to be successful.

Aubrey Hruby noted the West African Power Pool is a low hanging fruit, given pre-existing structure around it. In country selection, MCC should think about political economy. For example, Côte d'Ivoire is likely to experience contentious 2020 elections. She recommends choosing countries based on the political likelihood of completing a project.

Maureen Harrington commented that the biggest mistake MCC made during her tenure was picking sixteen eligible countries while MCC had ten staff members. MCC lost ground for countries that were not as capable and it is important not to set MCC up for a similar problem. How MCC will manage expectations of countries that aren't as fast to come up with a project or aren't as high capacity as others?

David Weld responded that the realm of possible regional projects is small and MCC will use a rigorous evidence base to communicate what projects MCC considers viable. There will be some disappointment but decisions will be based on a rigorous assessment of what can be done.

Naabia Ofosu-Amaah asked if there are key lessons learned from the process of setting up MCC that can be applied to these new types of compacts. For example, are there other regions where this might happen? How can you take best practices forward for future regional programs?

Lawrence Jones emphasized that many energy projects have been built, but the most critical element is the harmonization of market rules. It is good to build a project, but what is the 10 to 15 year viability? For example, in later years, MCC could see challenges in harmonizing Ghana and Côte d'Ivoire and that must be factored into planning.

Maureen Harrington recommended MCC team up with the World Bank or African Development Bank to determine if other multilaterals can support countries that aren't selected.

Alicia Robinson-Morgan responded that MCC is working with other donors to not operate at crosshairs and identify opportunities for other donors to create more cohesive projects in countries where MCC can't operate. For messaging, countries understand that the success of and support for current compacts must continue smoothly to be considered for new funding. For example, Côte d'Ivoire needs to meet preconditions and begin Compact implementation, and Burkina Faso needs to maintain momentum on the Compact development timeline. Countries understand that regional projects are not a guarantee and MCC's messaging on this front has been consistent.

Burkina Faso: Compact Development Review

[Briefing Memo Burkina Faso](#)

Florie Liser asked about tracking US companies with the capabilities needed in the focus project areas.

Kate Steel congratulated the presenters and asked if MCC is still working on early stage bankability, might it be too early to bring in independent power producers (IPPs)? She asked how MCC and the Burkinabe can make SONABEL both bankable and guarantee universal access, given that those two goals conflict? May it be too comprehensive?

Mima Nedelcovych questioned whether it might be too early to do an IPP unit within the government, but notes that countries are already interested in IPPs. He notes that Burkina Faso's challenge is a grid issue – an ability to accept the power. The grid side is where money should be going. Has MCC tried to standardize a power purchase agreement (PPA) document?

Zaidoon Khouri responded that the PPA captures the desires of developers and they responded positively in consultations, but is unsure if it is standardized.

Mini Roy mentioned appreciation for the early focus on bankability, which is key to getting private companies in the process. She endorsed Nedelcovych's views on standardization. Additionally, Burkina Faso qualifies for Islamic development bonds. She suggested Sukuk bonds for de-risking could be a viable

source for long-term financing for the electricity sector. She also noted that Islamic finance has a sale leaseback structure that has to be built in from the very beginning.

Michael Simsik responded that on the tracking of US companies, few US companies work in the area, though there are companies in the US that have asked questions.

Zaidoon Khouri commented that MCC has talked to several US firms while conducting market research regarding the solar space. MCC keeps a record of meetings and consultations; the team is currently in discussions to set up a “Power Burkina” event in summer 2019 to encourage US companies to participate in Compact procurements.

Kate Iovanna commented that part of the compact development roadmap is creating a plan for what is realistic to get done in five years and how staging should take place. Part of that planning includes a mapping of the financial sector.

Zaidoon Khouri added that MCC starts broad and then focuses efforts. The team is in the middle of that process and the financial viability of IPPs is a good point which the team is taking into account.

Michael Simsik responded that on the second question, MCC does not have an answer for how far we can go for inclusion and bankability. The team does not want to overcomplicate the projects and is working with the government of Burkina Faso to develop a precursor to the compact. For IPP standardization, Power Africa just delivered a series of 2-3 trainings to government stakeholders in energy sector. Part of the training was to help bring actors together and take a step towards standardization. Trainers noticed a lack of communication between those actors, so these events are a step forward.

Zaidoon Khouri responds that the Blanket Purchase Agreement captures desires of developers and they responded positively in consultations, but is unsure if it is standardized.

Mima Nedelcoyich recommends MCC look at the African Development Bank’s (ADB’s) Africa Legal Support Facility’s work on Power Africa.

Aubrey Hruby offers that the Commercial Law and Development Program at the Department of Commerce could be helpful as well.

David Spira asked if MCC has a good awareness of SONABEL’s performance. The briefing mentions high tariffs which are attractive for the private sector, but SONABEL is loss making. Is it related to high costs of operation or technical performance? SONABEL will be essential to the entire sector – to what extent do we have benchmarking across the region and continent or an ability to develop key performance indicators (KPIs)? This type of information would allow MCC to identify areas of strengths and weaknesses to work on both. The accounting breakdown between generation, transmission and distribution is a step in the right direction but are there farther steps.

Lawrence Jones noted that he attended the EIF African Utilities Power Exchange in Côte d’Ivoire with

CEOs from 21 utilities, including SONABEL. CEOs brought up financial viability; one of the largest loads and arrears they have are the government. If the arrears are with the government, is the problem the utility or government nonpayment? There is a need to engage with the utilities early on and work together with other donors. The French, World Bank, the Chinese, and MCC are all doing capacity building; instead of sending utility Chief Operating Officers (COOs) to four trainings in different places, how can these actors harmonize?

Maureen Harrington recommended making underlying transactions bankable. Commercial bank investments see guarantees as extra support but don't want to have to call a guarantee. Banks want to see capacity to pay and cost-reflective tariffs. For debut issuance, dollars are better received by the market than euros. She suggested looking to the International Finance Corporation (IFC) solar scaling program for lessons learned for successful fund raising but most funds are from donors rather than commercial.

Standard Bank likes collaborating with African Trade Insurance Agency (ATI) because ATI does not require a sovereign guarantee. However, most commercial banks have high exposure to ATI, which limits further use. Re-guaranteeing that insurance to allow African banks to take more could be a helpful DFC role.

Harrington also mentioned interest in storage but it is a new area and not many IPPs have had a storage component, though South Africa could be an example. In South Africa, the IPP unit worked well and MCC should reach out for lessons learned.

Patricia Sheikh noted concern about the credit worthiness of SONABEL and ability to attract the private sector. She mentioned a need to look at rural areas which contribute to GDP. If agriculture contributes 30% of GDP and 60% of country is employed in agriculture there needs to be attention paid. These rural enterprises are not solely mom and pop stores, but rather opportunities along the value chain.

Michael Simsik shared appreciation for comments and questions. SONABEL, compared to African utilities in the region, is in pretty good shape. There are outages, but it functions and has a high rate of collections – higher than others in the region.

Kate Iovanna agreed that KPIs, benchmarking, and core billing are all important to explore. She mentioned that as IPPs come online, SONABEL will back out of generation and move into transmission.

Michael Simsik noted that he hopes being part of the group of countries selected eligible for a regional investment will help improve coordination.

Zaidoon Khouri noted that the government wants SONABEL to be autonomous but also gives huge subsidies, which likely helps rationalize the government not paying bills on time. 2016 data on collection rates shows a 96% total collection rate, but a lower collection rate for the government as compared to the private sector.

Michael Simsik noted feedback and comments challenging whether storage will attract a great deal of

attention. It is key to understand what storage does to tariff and actual rates, which MCC will explore over the next months with feasibility studies.

Michael Simsik shared that in regard to the agriculture sector, MCC has a limited amount of resources for projects in Burkina Faso and is cognizant that a substantial part of GDP is in agriculture. The team is seeking balance with low electricity rates in rural areas and MCC criteria for investments.

Hector Morales mentioned Macquarie is very active in storage for grid stability and can share lessons learned. He is curious to hear about remittance streams and possibilities of harvesting remittances for bill payment and stimulating micro, small and medium enterprises.

Robert Dove encouraged working with other donors in the financial space and encouraged MCC to seek to collaborate with the central bank and the International Monetary Fund. He is encouraged to hear of a central bank that is not seeking to write guarantees.

Aaron Bielenberg noted that setting rate targets cuts both ways and can be quite political and has been helpful to drive difficult conversations. This is an excellent opportunity for MCC to play a role and catalyze investment in the space. As it transitions, SONABEL should focus on improving operations and cap/ex to deliver on the grid. Has MCC thought of operations and maintenance contracts? It is important to include customer facing solutions and get smart meters in place, and to look at digital collection systems. How is MCC thinking about these systems?

Tim Docking congratulated MCC for using innovative finance for development such as impact investing, guarantees, and public-private partnerships (PPPs). Can models from this engagement be scaled and replicated to use across agencies or with the DFC? Many countries in Africa need power projects and this will not be the last project.

Naabia Ofosu-Amaah mentioned opportunities for system-scale planning across Burkina Faso and shared tools in her written responses to MCC. These included social and environmental opportunities that could invite engagement with impact investors.

Michael Simsik responded that remittances are lower than other countries but MCC will explore the topic as the team seeks opportunities to stimulate businesses and improve bill payments. MCC is communicating with and keeping other donors informed of our work. MCC does not plan to do concessions, but may explore the contracts and management side. The team has spoken to SONABEL and looked at smart meters. Regarding innovation and investment, energy compacts may not always be the most interesting on the innovation side but there is a lot of room for innovation on the financing side. He thanks Naabia Ofosu-Amaah for ideas on the socioeconomic side and resources. MCC is exploring where to start and stop distribution and transmission lines and where other actors can take the next step.

Fred Sisson mentioned that solar power delivery is rapidly changing; could it make sense to have a standardized feed in tariff for on and off grid?

Concluding Remarks/House Keeping

Following the discussion on the Burkina Faso compact and breakout sessions of the newly formed subcommittees, PLSD Dixon opened the floor for concluding remarks and questions from the Council. Readouts from these subcommittee meetings will be highlighted in the next MCC Advisory Council meeting.

<<Follow-on to earlier discussion below>>

Following on previous discussions at the outset of the meeting, the Advisory Council discussed subject areas where members could provide technical guidance on MCC's mission. The Advisory Council agreed to submit an updated letter to the Head of Agency. This letter will be developed after reviewing previous points and carrying over themes that are still relevant.

The following suggestions were made for future areas for Advisory Council input, both in the letter to the Head of Agency and as themes for future meetings:

- **Nilmini Rubin:** How can the Advisory Council best update the letter to the CEO? One point could be an explanation of why private companies may not bid on MCC work and what could be improved to support US companies.
- **Aaron Bielenberg:** How can MCC define its engagements with the DFC? For blended finance, is there a way for the Council to help define and test instruments that would be most helpful?
- **Aubrey Hruby:** What are very specific details we can provide on MCC-DFC engagement?
- **Alexander Dixon:** MCC Executive Team just approved six recommendations on how MCC can collaborate with the DFC.
- **Kate Steel:** How can the DFC diversify outside of infrastructure? How can additional countries in Prosper Africa?
- **Mini Roy:** How can MCC and the DFC innovate based on founding legislation? Blended finance is a buzzword defined differently by many actors; how can we define a set of options for MCC-DFC cooperation to create a new dynamic for US interests, transparency and how MCC approaches business?
- **Nilmini Rubin:** When MCC was created, we envisioned the compact as a competition for the best way to implement between business, government, and civil society. MCC's founding legislation does not say MCC has to create compacts with governments. How can we think more creatively, particularly as we look at the original MCC and DFC legislation?
- **Aaron Bielenberg:** What could this innovation look like at the city or subnational entity level?
- **Naabia Ofosu-Amaah:** What can this group do to build domestic awareness of MCC through our networks and organizations?
- **Patricia Sheikh:** What can the Advisory Council do to make it easier for US companies to win a contract with MCC?

Lawrence Jones: To revisit subnational discussion, many development agencies are fighting with national governments and not focusing on the subnational, which frequently is underfunded. What are the

opportunities to create a scorecard for subnational regions and cities?

Opportunity for Public Comment

There were no public comments at the meeting or written comments submitted in advance.

Meeting Adjourns

MCC Advisory Council Members Present

- Aaron Bielenberg, McKinsey & Company
- Tim Docking, Refugee Investment Network
- Robert Dove, Darby Investment
- Maureen Harrington, Standard Bank
- Lawrence Jones, Edison Electric Institute
- Mima Nedelcovych, AfricaGlobal
- Tam Nguyen, Bechtel
- Nilmini Rubin, Tetra Tech
- Patricia Sheikh, Roots of Peace
- David Spira, Deloitte Consulting
- Kate Steel, Nithio
- Joe Dougherty, Dalberg Global Development Advisors
- Aubrey Hruby, Africa Expert Network, Atlantic Council
- Hector Morales, Macquarie
- Florie Liser, Corporate Council on Africa
- Naabia Ofosu-Amaah, The Nature Conservancy
- Mini Roy, Metis Markets Dafna Rand (Mercy Corps, present in Neal Keny-Guyer's stead)
- *Stephen Groff, Asia Development Bank (former)
- *Fred Sisson, Synnove Energy
- *Alex Sarac, Bryan Cave Leighton Paisner *via Webex

* via Webex

MCC Advisory Council Members Absent with Apologies

- Justin DeAngelis, Denham Capital
- Neal Keny-Guyer, Mercy Corps (Dafna Rand present in his stead)
- Daniel Runde, Center for Strategic and International Studies (CSIS)
- Craig Steffensen, Asian Development Bank (former)
- Guevera Yao, US Chamber of Commerce

Annexes

MCC Advisory Council Written Feedback – Burkina Faso Compact

David Spira, Deloitte Consulting

4. **How can MCC best balance the goal of helping SONABEL become financially self-sufficient in the long term with the corresponding pressure for it to achieve universal access?**

The twin difficulties of constrained supply and expensive power can be at least partially addressed through expanded cross-border trade with Ghana and Cote D'Ivoire and even Nigeria. MCC could support SONABEL to negotiate improved PPAs especially with Cote D'Ivoire (Cote D'Ivoire could export more power to Burkina Faso but appear to be constrained by an old PPA structure effectively limiting exports to 50 MW. We understand that the current trade regime, covering up to 100MW, is for imports up to 50 MW @ 10c\$/kWh and over 50 MW @ 31c\$/kWh, which effectively caps imports.

MCC could also support the new 100 MW 225 kV line from Bolgatanga (Ghana) – Ouagadougou (Burkina)/ 225 kV scheduled for 2023 completion including commercial transactions to access a second cross-border trading route and diversity of suppliers. MCC could also support a cross-border link from Nigeria to BF through Niger (Ouagadougou (Burkina)- Niamey (Niger) / 330 kV rated at 300 MW) again including commercial transactions. This tie-in has broader regional significance as it would provide a transmission connection to Ghana and Cote d'Ivoire through BF.

9. **Given that increasing electricity access is necessary but not sufficient for generating significant economic impact with rural poor or marginalized populations, MCC is considering options to include a productive use of electricity (PUE) component to the Grid Development and Access project.**
10. **How do we best identify pockets of elevated economic potential and effectively support them through a PUE intervention?**
11. **What needs to be included in an effective PUE intervention (e.g. access to credit, financial literacy skills, etc.)?**

There is significant scope with BF's Grid Development and Access Project to both promote private sector investment generally and create commercial opportunities for US firms already active in this space throughout Africa.

East Africa Region offers good examples of how to accelerate electrification through mini-grids whose placement capitalizes on local productive use (and generation) opportunities. Numerous US firms are successfully exploiting this space. This link (<http://africamda.org/wp-content/uploads/2018/10/WHITE-PAPER-SMART-RBF-Policy-Recommendation.pdf>) highlights an example of subsidy parity and results based financing, which argues in favor of donors opening up the playing field of electrification to not only legacy electric utilities but also

private investors with alternative electrification solutions (mini-grids, stand-alone SHS). These investors use geospatial and other tools to identify “**identify pockets of elevated economic potential**”, such as generation potential (hydro, biomass, wind), agricultural potential (plantations, large holdings), economic potential (market towns, district capitals) having the demand for and the ability to pay for electricity services. Some donors – GIZ in particular – are very adept at this, and have entire tool kits to borrow (see: https://www.esmap.org/sites/esmap.org/files/ESMAP_GIZ_BMZ_AEI_PRODUSE_Study_FullText_Optimized_0.pdf).

“Must haves” for effective and sustainable PUE interventions include:

1. Clear policies regarding responsibilities for electrification and assignment of different electrification modalities, possibly through a geospatial-aided master planning process
2. Clear strategy for productive use interventions reflective of realistic opportunities in a given area. Micro-enterprises? Village enterprises? Incentives for industrial development in peri-urban areas?
3. Tariffs and pricing reflective of both ability to pay/affordability and cost-recovery. In the case of mini-grids there should be a mini-grid regulatory framework providing guidance for pricing, safety standards, etc.
4. Concessional financing for new business start-ups including capital equipment, preferably coordinating through an economic development program and perhaps through a revolving fund administered by local government. See this extract from East Africa proposal: *The Productive Use/SME Specialist will work with MOE, KPLC, and selected rural counties to develop a productive use program that promotes the growth of grid-connected businesses and identifies demand-driven grid extension opportunities. The program will include inducements and incentives to be developed in cooperation with KPLC and ERC, such as defraying the cost of 3-phase connections and discounted tariffs for productive users meeting minimum usage criteria. Where feasible, EAEP will seek opportunities to work with female entrepreneurs and business owners to drive equitable economic development.*
5. Outreach ala GIZ’s programs, inclusive of capacity building and entrepreneurship.

Fred Sisson, Synnove Energy

Generally, my comments focus on (3) areas where I believe MCC compact funds could be most strongly used: technical, financial and procurement assistance. Many of my comments parallel the briefing outcome, with the exception of the procurement mechanism. The underlying issue across all areas in Burkina Faso is the availability of qualified government personnel for meeting power sector demands. I believe that as more investment in the sector is created, the momentum will attract and create the GoBF resources over time. Bridging the resource gap can be cost shared by MCC and the private sector, if structured to incentivize the private sector.

On the technical side, accomplishing the objective of delivering more power to the people of Burkina Faso will require a roadmap of the most cost effective ways of delivering electrons on an LCOE basis, overlapped with geographic areas of need. Burkina Faso’s electric infrastructure has largely been grown around urgency and political objectives, which doesn’t necessarily accomplish the objectives of efficient

power delivery. The Department of Energy, through their Solar Energy Technologies office and through their Energy Efficiency and Renewable Energy International office, has many of the resources to help guide efforts in supporting grid resiliency with uncertain but rapid growth. Private sector technical partners then could be used to help determine technical and financial feasibility of various solar energy architectures (grid connected with and without batteries, off-grid village and community level mini-grids, etc.).

Financial risk support is especially important today and would be an ideal area for MCC compact participation. Over the past 12 months, the African Continent has seen a significant pullback of investment liquidity, especially to those sovereigns with the lowest GDP's per capita. The investment community's view is that these areas are more susceptible to social unrest and upheaval because the people are not able to meet their basic requirements. The lack of investment caused by this view only exasperates the issue. MCC's facilitation of risk mitigation facilities would help the private sector deploy more capital. The risk mitigation facilities could take the form of a standardized legal framework for GoBF sovereign backstops for PPA's (i.e.: not full-faith sovereign guarantees), USD liquidity facilities in partnership with US banks, pre-approved debt terms and agreements with OPIC and AfDB with standardized qualification criteria. The costs associated with these is largely legal and financial advisory; more generally planning activities.

The procurement process outlined in the Briefing Memo appears to be too prescriptive and limiting. My recommendation here is that a standardized, multi-year feed-in-tariff is established. The FIT would have multiple tariff tiers based on the architecture of the solar power system proposed (higher for small stand-alone systems, lower for basic grid connected, etc.). Tariffs will have already been evaluated under the technical assessment above for financial feasibility. The FIT program should borrow from best practices in areas like Germany, specifically with capacity milestones linked with tariff reductions over time. Given that all of the tariffs from the start will be at lower rates than the current avoided costs in Burkina Faso, there should be cost benefits from day 1 without drawing from public funds. When combined with the items above, a FIT would allow the private sector to scale rapidly and share risk with a view of growing an industry in Burkina Faso, not just doing a few projects.

Tam Nguyen, Bechtel

My comment refers to item 5, for consideration: **"MCC is exploring its flexibility to use our grant funding in different ways to offset risk. Our grant funding could be used to support the cost of a payment or credit guarantee to mobilize private investment capital. Or MCC could fund new technologies such as battery storage via a grant facility to incentivize adoption. What do you think is the most effective use of MCC funds to help deals get to financial close, raise the threshold of solar generation that could be brought onto the grid, and lower tariffs to end users?"**

One idea to use grant funding is to support a sector master planning process. The Master Plan would transform a vision into an executable plan, including what to prioritize, how to sequence the development and funding sources, integrate data, provide early conceptual designs and a roadmap for implementation. There is an opportunity to use the planning process to build the civil servant capacity to manage sector

implementation. The product helps to identify bankable projects, and by extension, help attract investors. The grant can be an APS. An experienced engineering, procurement and construction company should be lead the process rather than a consulting firm because they have unique knowledge and insights related to infrastructure development.

Aaron Bielenberg, McKinsey & Company

Congratulations to the Burkina Faso team for completing a comprehensive constraints analysis and assembling a very comprehensive plan and briefing. The constraints identified and the initial list of interventions is comprehensive, appropriate and consistent with our experience with requirements for power sector reform and catalyzing investment. The work completed will provide a robust baseline for compact development and establishes a true opportunity for impact for MCC and the United States.

Based on experience in power sector transformation one general observations we look forward to emphasizing and discussing further:

As you have recognized in your analysis, comprehensive, robust and forward-looking power sector roadmaps are critical for success. In the power sector transformations we work in, the major lesson learned is that having a robustly defined comprehensive financial, operational and institutional roadmap is critical for success.

The traditional tools for power sector planning (e.g. integrated resource planning) too often are done in isolation and are not coordinated with other critical power sector reform plans, e.g. regulatory reform plans, grid modernization plans and funding. In power sectors where significant modernization and investment is required and there are major regulatory gaps like in Burkina Faso we have found that one overarching roadmap that serves as the integrator for a set of focused and technical plans (e.g. grid upgrades, utility turnaround plans) can much more effectively coordinate stakeholders against coordinated action. This “one source of the truth” also provides the critical baseline to attract third party financing.

Critical to these roadmaps is not only that they are comprehensive, but that they be based on robust and technically supported analysis, modeling and projections that adequately foresees the technological trends that are reshaping the power sector (e.g. cost of storage, role of distributed power, electric vehicles, non-wires alternatives, smart grids etc.). Failure to consider the implications of technology on 30-year investments can result in stranded costs.

Many plans inadequately consider the full potential of technology to support more efficient delivery of power services and to potentially provide alternative revenue streams and economics to utilities. Whether it's the forward cost curve for storage which will make storage much for affordable and solar more competitive in the near term, digital tools to optimize maintenance, smart meters to improve collections, technology provides opportunities for utilities, even in the emerging markets to become more efficient and sustainable. Additionally, utilities are well placed to be the providers of services like distributed generation solutions and electric vehicle leasing services that can benefit the utility by generating revenue

and avoiding capex spend but also provide more affordable services to customers.

Responses to the questions included in the Advisory Council Briefing: Please note that given the breadth of the question we have focused on identifying the most critical responses rather than a comprehensive list of responses for each.

1. **What policy and institutional reform interventions are most important and impactful in the power sector?** The briefing lists many of the critical interventions, all of which are important, however, the most critical interventions in our experience relate providing clarity on how private generators or operators will be regulated – which includes the regulations supporting an independent and well-funded expert regulator and clear definition of its powers and roles, with safeguards to protect its funding to hire experts and its independence in Ideally a track record is established as soon as possible.
 - a. **What conditions should be in place to put the sector on good footing and attract investors?** In addition to a strong regulatory framework noted above, investors will need to see a creditworthy counterparty or a clear credit enhancement program in place to supplement the creditworthiness of the Additionally, clear visibility on the modernization roadmap, the position of generation projects in a plan and how the grid will support power distribution are some of the most critical conditions for investors, among others.
 - b. **Does it make sense to have a dedicated IPP unit versus only a general GoBF PPP unit for all infrastructure projects?** Where would you propose the IPP unit be housed and how would it interact with other government stakeholders? In our experience we have found that establishing multiple centers of excellence for procurement can be Resources and talent are limited in this context and centralizing expertise will be critical, having a focused track for IPP that draws on the general PPP framework could be valuable.
2. **In addition to the potential policy and institutional reforms noted above, what else could MCC do to incentivize and attract private investment in the energy sector?** Among other potential measures, MCC could ensure a comprehensive power sector plan is developed, could through this process play a coordinating role in directing DFI funding and as part of this process support the development of a clear procurement process, bankable procurement documents and a staple financing and guarantee structure that provides clarity and appropriate risk allocation for bidders and This does seem to be in many ways covered by the blended finance solutions with the additions noted below.
 - a. **What is missing from the potential blended finance interventions? Are there better alternatives?** The interventions listed in the briefing is a powerful package of Potential additional interventions could include:
 - i. A staple financing package for IPPs – coordinated with the tender and form document development process, MCC could fund an advisor to develop a staple financing package complete with guarantee support, DFI funding and private funding (including bank and bond options) that would be available to bidders. This would significantly reduce transaction costs for bidders and the government and accelerate the process. This staple package could include insurance products and even solar module procurement options and other technical supplies all of which

- can have reduced cost if bought in bulk by a creditworthy counter party rather than multiple developers building small projects;
- ii. A development loan program that lends to developers and sponsors (e.g. hospitals, universities) to pay for feasibility studies and power solutions so that technically robust projects can be submitted to a tender process, otherwise the pipeline will be very disparate;
 - iii. Project Bond refinancing program – As part of the financing package a facility could be developed that would be prepared to refinance projects that are operational. An optional solution for bidders this would allow for capital recycling in that higher cost debt with shorter term that may be more appropriate for construction and development can be refinanced to longer term debt when projects meet operational criteria;
 - iv. Grid Modernization Debt Facility – as part of the Sonabel bond program (could be a bank loan facility as well) develop a bond that is focused on funding incremental investments in the grid that improve efficiency and revenue collection and growth. If the debt facility is clearly linked to new potential revenue and lock box structures are used it can be issued at more affordable rates given the reduced risk;
 - v. Offgrid Concession Finance – MCC support the development of and provide first loss capital to seed a financing facility to fund the delivery of offgrid distributed solutions for rural electricity which is derisked by granting concession or multiple concessions to proven operators;
 - vi. Storage Investment Model – Battery storage will provide significant grid benefits and enable more renewables however storage is expensive now and also has some technology risks. MCC could develop a facility that takes technology risk against proven manufacturers and also guarantees that if there is a long-term contract in place it will also fund storage replacement in 7-10 years when efficiencies increase dramatically. Effectively this is a lease financing of storage – storage as service. This facility while not particularly risky provides a much needed solution to the market.
3. **MCC is exploring the possibility of assisting SONABEL with a bond issuance to access lower-cost debt from capital markets in order to improve its balance sheet to attract IPPs and better manage its assets (for reference, note: Senegal's SENELEC bond issuance 2018 that mobilized CFAF 38.2 billion through an investment syndicate led by CGF Bourse and Impaxis Securities).**
- a. **What conditions need to be in place for a SONABEL bond issuance? Do you think there would be interest in the market?** We cannot comment on market conditions or likelihood of success of an issuance, however, critical for a successful bond issuance will be the following, among others: (i) Strong capable leadership and staff and limited government interference in commercial decisions, (ii) a clear strategic plan and transformation plan including a robust investment plan for the grid and generation, (iii) collection levels and loss levels at least at median peer group, (iv) robust financial projections with third party assessment of projections including the demand/revenue forecast, (v) adequate
 - b. **What role could regional institutional investors play?** Regional institutional investors could be particularly relevant investors but there is a limited set with an interest in exposure to credits of this A concerted effort to market the bond and African utility bonds

generally would be valuable for the market.

4. **How can MCC best balance the goal of helping SONABEL become financially self-sufficient in the long term with the corresponding pressure for it to achieve universal access?** This is a critical question facing governments and state-owned utilities globally. The balance can only be achieved through a clear and robust assessment of the financial state of SONABEL and honest projections of the impact of investment on rates. While policy may support universal access, utilities cannot afford to provide universal access without raising rates on all rate payers. Establishing transparency on the impact of universal access investments on the financial sustainability and rates, with the assumption that the utility must be able to meet basic financial targets, will help size the investment available for universal access at different rate targets. Then it becomes a question of managing the tradeoff between universal access and affordability. Another critical step is developing the least cost universal access plan – assessing where some customers can have grid access and some will need to depend on rooftop or micro-grid solutions, based on cost of providing access. This least cost plan will help support a financially sustainable universal access plan. This plan will be able to define the currently uneconomic investments in universal access and then raise concessionally financing or variable rate tools to fund this.
5. **MCC is exploring its flexibility to use our grant funding in different ways to offset Our grant funding could be used to support the cost of a payment or credit guarantee to mobilize private investment capital. Or MCC could fund new technologies such as battery storage via a grant facility to incentivize adoption. What do you think is the most effective use of MCC funds to help deals get to financial close, raise the threshold of solar generation that could be brought onto the grid, and lower tariffs to end-users?** One option is to develop a combination of the proposed solution, to provide grant funding that is sufficient to make new technologies competitive and cover technology risk. Storage for example includes some element of technology and regulatory risk that makes private financing challenge, including the risk of obsolescence. MCC could develop a set of targeted financing solutions for battery storage that cover technology risk and provide equity capital cushion sufficient to make solar/storage solutions competitive. An additional funding option would be a results-based financing model for utility transformation whereby SONABEL receives a grant implement very specific grid and system improvements which require purchasing assets such as meters, software, distribution equipment, but deliver real financial benefits to the utilities in a short time frame. If results are achieved then additional grants can be provided to fund the next investment which creates an impact linked grant program.
6. **MCC is considering supporting the GoBF to become a member of the Africa Trade and Insurance Agency (ATI). What experience do you have working with ATI? Will developers utilize ATI's risk mitigation products?** Will defer to others to respond to
7. **Of the successful models deployed globally for rural electricity access, are there any that you would recommend MCC pursue?** To follow up with specific
8. **Given that increasing electricity access is necessary but not sufficient for generating significant economic impact with rural poor or marginalized populations, MCC is considering options to include a productive use of electricity (PUE) component to the Grid Development and Access**
 - a. **How do we best identify pockets of elevated economic potential and effectively support them through a PUE intervention?** We can follow up with a specific answer to this
 - b. **What needs to be included in an effective PUE intervention (e.g. access to credit,**

financial literacy skills,)? We can follow up with a specific answer to this question.

- 9. What role could impact investors play in rural electricity access? Are there any social business models that may be relevant to MCC's rural electrification work?** Social impact investors have played an important role in providing equity to distributed generation developers (e.g. MKOPA and BBOX). The next generation of social impact investing in this space will hopefully be to fund via equity investments to developers or direct funding to programs large scale concessions for delivering rural electrification. For example, MCC could support the development of a clear and actionable plan for delivering distributed power to rural Burkina Faso that would be concessioned to a set of distributed power developers and social impact investors would provide the upfront equity and loans to the developers to execute against this concession. Ultimately the concession may itself have to have grant funding to make the economics work but the need and the scope of this need can be defined by developing and modeling a rural electricity concession.

Nilmini Rubin, Tetra Tech

- 5. MCC is exploring its flexibility to use our grant funding in different ways to offset risk. Our grant funding could be used to support the cost of a payment or credit guarantee to mobilize private investment capital. Or MCC could fund new technologies such as battery storage via a grant facility to incentivize adoption. What do you think is the most effective use of MCC funds to help deals get to financial close, raise the threshold of solar generation that could be brought onto the grid, and lower tariffs to end-users?** Private capital will come to the table if the technology has a model that can generate returns. If the technology is not ready, the guarantee might not do much. If a guarantee is put in place, make sure that it is flexible, including first loss and above 75% coverage, to bring something different from what's already available in the market: African Guarantee Fund, Guarantco, MIGA and others. The guarantee also needs to be flexible to support a variety of facilities (for example, equity, debt, commercial or DFI funded facilities). There are many guarantees currently in the market with very low utilization.
- 6. MCC is considering supporting the GoBF to become a member of the Africa Trade and Insurance Agency (ATI). What experience do you have working with ATI? Will developers utilize ATI's risk mitigation products?** Many governments like the idea of ATI until it comes to getting the letter of commitment from Treasury. We've seen cases where govs give a nod but Treasury/Ministry of Finance declines. The point is that MCC should make sure all relevant parties buy into the idea. If possible, ATI should also cover off-grid and C&I technologies on i) SHS: manufacturing/product sourcing insurance; ii) C&I off-taker payments; iii) MG off-taker and insurance to support Results Based Finance products.
- 7. Of the successful models deployed globally for rural electricity access, are there any that you would recommend MCC pursue?** There is a need for mini-grids and AfDB is setting up a good framework, having identified hundreds of sites in their Mini-Grid Market Opportunity Assessment in BK, June 2017. They should partner: AfDB could start deploying while MCC sets up the Compact, it will give MCC enough time to follow up on the remaining sites. The GoBF needs to see there is capacity to scale private operator models. Still, attracting private investors to a country like Burkina is difficult, especially as the security situation deteriorates. However, MCC should do direct investment through a grant facility like in Benin, where there is a good model of

collaboration between MCC and AfDB.

Burkina is a hot market: mobile money penetration is actually higher than in other WA countries, and this is a main factor for PAYG. Companies such as Orange and Oulu are selling PAYG SHS products already. Other companies have evaluated and are interested but are concerned about security.

An RBF (Results Based Finance) grant facility for both MG and PAYG could be very useful for both.

8. **Given that increasing electricity access is necessary but not sufficient for generating significant economic impact with rural poor or marginalized populations, MCC is considering options to include a productive use of electricity (PUE) component to the Grid Development and Access project.**
 - a. **How do we best identify pockets of elevated economic potential and effectively support them through a PUE intervention?** 1) Mapping of agricultural and other industry value chains across the country for new connections; 2) For existing businesses connected (or not), already implementing PUE ensure clean quality, reliable and low cost power to avoid grid deflection to cheaper more reliable C&I power suppliers; 3) also focus on domestic customers: support financing of appliances.
 - b. **What needs to be included in an effective PUE intervention (e.g. access to credit, financial literacy skills, etc.)?** Ensure value chain mapping exists for new product creation through PUE. For example, milk chilling can create excess milk and implementers need to ensure that milk aggregators have the capability to absorb the additional product. If farmers are switching from rain-fed maize farming to year-round horticulture with solar drip irrigation, implementers need to ensure this new product has an uptake in the local or international market.
9. **What role could impact investors play in rural electricity access? Are there any social business models that may be relevant to MCC's rural electrification work?** Impact investors are very interested in frontier markets such as BF, since they have already invested in safer markets in East Africa they are now eying WA for replication and scalability of successful off-grid models in the SHS PAYG, MG C&I and PUE sectors. Impact investors can play a catalytic role in jump-starting companies in BF. MCC investment could then be focused on the scalability.

Kate Steel, Nithio

1. **What policy and institutional reform interventions are most important and impactful in the power sector?**
 - a. **What conditions should be in place to put the sector on good footing and attract investors?** Investors will need assurance that they will get paid and their contracts will be honored, or disputes resolved efficiently. I think it will be difficult to build up the Burkinabe institutions to be investment grade within the time period of the compact so would focus on setting them on the right path while still offering significant guarantees in the interim.
 - b. **Does it make sense to have a dedicated IPP unit versus only a general GoBF PPP unit for all infrastructure projects?** I think you need a dedicated IPP unit, but it could sit within a PPP unit if needed. **Where would you propose the IPP unit be housed and how would it**

interact with other government stakeholders? I think this would most logically sit with Ministry of Infrastructure or Mines and Energy, but needs to have close coordination with Economy and Finance, as well as Ag and Water Resources. It may be easier for it to be somewhat independent and interagency to mitigate potential conflict from one Ministry directing another.

4. **How can MCC best balance the goal of helping SONABEL become financially self-sufficient in the long term with the corresponding pressure for it to achieve universal access?** SONABEL will not become financially self-sufficient if it must also connect all households, these goals are in conflict. Suggest focusing grid electrification efforts on urban households and using off-grid solutions (with public support) for remote rural households. As SONABEL gains some financial stability, it can use a Rural Electrification Fund or similar model to subsidize rural connections, but should still only connect households that are viable grid customers. For low power demands, off-grid will continue to be the better option for many households. I realize this is a politically delicate matter, but the ability to deliver off-grid very quickly, instead of waiting years for the grid, should demonstrate the government's commitment to providing basic access to all households.
5. **MCC is exploring its flexibility to use our grant funding in different ways to offset risk. Our grant funding could be used to support the cost of a payment or credit guarantee to mobilize private investment capital. Or MCC could fund new technologies such as battery storage via a grant facility to incentivize adoption. What do you think is the most effective use of MCC funds to help deals get to financial close, raise the threshold of solar generation that could be brought onto the grid, and lower tariffs to end- users?** I would focus on guarantees for additional generation, ideally using interconnections or hydropower to buffer additional PV projects. Instead of direct grants to developers, I would focus on establishing a standardized process so that developers don't need to spend as much time/money on permitting, PPA negotiations, etc. I worry that any direct grants would be more expensive on a per project basis and not help established an improved enabling environment.
7. **Of the successful models deployed globally for rural electricity access, are there any that you would recommend MCC pursue?** I would recommend an integrated plan that includes grid, mini-grid and SHS electrification. For BF, I would assume much of the rural electrification would be off-grid (either mini-grid or SHS). I haven't looked at how the experience has ended up, but would look to Mali's diesel (and later hybridized solar) microgrids that uses SHS on the periphery. Looking too far afield means that the lessons may be harder to translate, but experience from Mali would be highly relevant.
8. **Given that increasing electricity access is necessary but not sufficient for generating significant economic impact with rural poor or marginalized populations, MCC is considering options to include a productive use of electricity (PUE) component to the Grid Development and Access project.**
 - a. **How do we best identify pockets of elevated economic potential and effectively support them through a PUE intervention?** Data company Fraym has done this type of work in other countries.
 - b. **What needs to be included in an effective PUE intervention (e.g. access to credit,**

financial literacy skills, etc.)? I would look to the Nigeria example of the REA program on energizing economies where they are using microgrids in commercial centers. I would not focus on productive use at a household level, only at a community level.

9. **What role could impact investors play in rural electricity access? Are there any social business models that may be relevant to MCC's rural electrification work?** Impact investors can help support the private companies that can build and operate minigrid and SHS companies, but in BF there will be a need for public support to incentivize companies to set up operations there.

Neal Keny-Guyer, Mercy Corps

1. **What policy and institutional reform interventions are most important and impactful in the power sector?**
 - a. **What conditions should be in place to put the sector on good footing and attract investors?** An excellent, comprehensive resource for power sector regulatory reform is the World Bank Regulatory Indicators for Sustainable Energy (RISE) indicators, which indexes countries worldwide on a set of common indicators that compare national policy and regulatory frameworks for sustainable energy, which in turn can help assess the investment environment for energy in a given country.

The most important ingredient for attracting investors is streamlining procurement and contracting processes, including setting clear and differentiated tariff policies. This, in combination with ensuring the financial health of off-takers, are proven to be key elements in supporting IPPs and their investments enter the market. ¹ For IPPs to operate effectively in Burkina Faso and attract investment, the following reforms are priority:

- Operationalize the 2017 National Strategy by clarifying the respective mandates and administrative responsibilities of national sector entities: SONABEL, ABER, ARSE, ANEREE.
- Set a clear policy on differentiated tariffs with the participation of SONABEL, ABER and COOPEL.
- Publish clear guidance on the licensing and procedures required to develop renewable energy projects, including maximum processing times at each stage. Include guidance tailored to clearly delineated thresholds for development type and size. This could include a competitive bidding framework for small renewables power projects and for large scale power projects.
- Develop clear regulatory policy on network connection and use such as grid code that details connection procedures, costs for use of the transmission and distribution system, net metering.
- Remove import duties for high quality solar project components energy imports.
- b. Does it make sense to have a dedicated IPP unit versus only a general GoBF PPP unit for all infrastructure projects? Where would you propose the IPP unit be housed and how would it interact with other government stakeholders?

Yes, having a dedicated IPP unit will allow a clear path to increase transparency and quality control, support a project pipeline with technical support, and reduce costs through competitive bids. There is ample evidence from Sub-Saharan Africa that competitive bids reduce costs over direct negotiation. [[IBID] This unit should follow clear regulatory policies set out by ARSE. Multilateral funders should consider making competitive procurement a precondition for funding streams and guarantees.

The IPP unit could follow the South Africa model, where the IPP unit was set up by the National Treasury in partnership with the Ministry of Energy. An alternative could be to set up a Special Purpose Vehicle whose function is to provide technical support to actualize a pipeline of projects from intake, tendering to IPPs/EPCs, financing, and quality control oversight of implementation and monitoring over the lifetime of the project. The purpose of this SPV would be to encourage competition, quality of implementation and increased capacity within Burkina Faso's IPP/EPC sector.

2. In addition to the potential policy and institutional reforms noted above, what else could MCC do to incentivize and attract private investment in the energy sector? a. What is missing from the potential blended finance interventions? Are there better alternatives?

MCC can increase the information available to project developers, assess project risk and bundle projects at certain risk profiles to help create a project pipeline to attract private investment. This could include completing studies that map the number, location, type and size of projects, complete an analysis of project financing requirements and payback period, and an assessment of project risk. The benefit of pursuing either an SPV or an IPP unit that performs these functions is that they can also reduce the risk by providing a quality oversight and technical assistance function during the life of the asset.

3. MCC is exploring the possibility of assisting SONABEL with a bond issuance to access lower-cost debt from capital markets in order to improve its balance sheet to attract IPPs and better manage its assets (for reference, note: Senegal's SENELEC bond issuance Feb. 2018 that mobilized CFAF 38.2 billion through an investment syndicate led by CGF Bourse and Impaxis Securities) a. What conditions need to be in place for a SONABEL bond issuance? Do you think there would be interest in the market?

See Issuing international sovereign bonds / prepared by Mauro Mecagni [et al.]. – Washington, D.C. : International Monetary Fund, 2014.

b. What role could regional institutional investors play?

N/A

4. How can MCC best balance the goal of helping SONABEL become financially self-sufficient in the long term with the corresponding pressure for it to achieve universal access?

- Tariff reform to increase tariffs to sustainable cost recovery rates.
- Enable household metering and mobile payments to increase revenue collection.
- Increase quality/consistency of service to end consumers.
- Allow increased network coverage through facilitating contracts with IPPs. This will increase overall revenue for SONABEL.
- Increase grid supply from WAPP.
- Make competitive bidding process a precondition for multilateral funding and guarantees.

5. MCC is exploring its flexibility to use our grant funding in different ways to offset risk.

Our grant funding could be used to support the cost of a payment or credit guarantee to mobilize private investment capital. Or MCC could fund new technologies such as battery storage via a grant facility to incentivize adoption. What do you think is the most effective use of MCC funds to help deals get to financial close, raise the threshold of solar generation that could be brought onto the grid, and lower tariffs to end-users?

Once the risk profile and payback periods for a portfolio of projects are determined, MCC can offer a combination of grant funding support for different project types. The benefit of administering this support through an entity like an SPV or independent IPP unit is that MCC can be targeted in deciding which types of projects receive which type of grant support. With this approach there is more flexibility to define a range of desired outcomes (e.g. total installed capacity, total number of off-grid customers reached, productive use of energy, increased incomes for women) over a set of project portfolios, rather than applying one financial instrument that may not be able to satisfy/achieve such varied outcomes. For example, MCC can offer to fund new technologies for small projects that may not attract private capital, while using *credit guarantees* and *political risk insurance* to attract private investment capital in a larger bundle of MW scale projects with a better return on investment. Rather than do this on a project by project basis, we recommend doing it as part of a broader commitment to a portfolio of projects that fit within a common profile.

6. MCC is considering supporting the GoBF to become a member of the Africa Trade and Insurance Agency (ATI). What experience do you have working with ATI? Will developers utilize ATI's risk mitigation products?

We do not have experience working with ATI.

7. Of the successful models deployed globally for rural electricity access, are there any that you would recommend MCC pursue?

Yes, South Africa, Kenya, Uganda, Tanzania, Rwanda, and Nigeria may be valuable to look to.

8. Given that increasing electricity access is necessary but not sufficient for generating significant economic impact with rural poor or marginalized populations, MCC is considering options to include a productive use of electricity (PUE) component to the Grid Development and Access project.

a. How do we best identify pockets of elevated economic potential and effectively support them through a PUE intervention?

Conduct a sex disaggregated labor market analysis to identify the sectors have the most potential to promote economic development and add jobs at the community, regional, and national scales – and, which require energy inputs for growth. This will allow the intervention to identify where energy infrastructure can be placed most strategically in combination with soft inputs, such as development of a supply chain, for energy efficient appliances, vocational training for upskilling or new skills development, expansion of access to credit for consumer financing, and financial and business skills development for energy intensive sectors. By understanding opportunities disaggregated by sex the intervention can make strategic investments in sectors and training that will increase women’s participation in the workforce or informal sector.

This study or series of studies should be mapped spatially to identify opportunities to link electrified communities together into energy hubs that maximize the regional potential of electricity infrastructure and PUE interventions.

It is important to include explicit PUE interventions funding for technical assistance and market development support to communities. The private sector companies providing electricity access are *not* best placed to provide this kind of time intensive support to community members and institutions. Activities with communities should include, but

not be limited to, assessing current energy use, stimulating energy demand across communities (both households and business/enterprises), and educational trainings. Partners should be tasked with creation and delivery of trainings, tools, and resources to drive energy demand and to help communities with existing and new business plans (including getting access to other resources such as microfinance or external trainings).

b. What needs to be included in an effective PUE intervention (e.g. access to credit, financial literacy skills, etc.)?

Area 1: At a community scale, involve community in A2E project design from the start

- Connectivity and Tariff Trainings
- Village Electrification Committee (VEC) Advising
- Household Connectivity Evaluation/Summary
- Load Usage Workshops
- Household Electrical Appliance Access Report
- Potential Microenterprise Entrepreneurs Identified & Trained

- Introduction of additional financing options

Area 2: Increased number of connections

- Community awareness building on tariffs, payment mechanisms and electricity use from minigrid
- Establish Village Energy Communities to support connectivity and demand management

Area 3: Increased electricity usage

- Demonstrations/ illustration of usage/ clarification on tariffs
- Train VEC in promoting energy efficient appliance and acquiring appliances

Area 4: Increased productive use

- Identification of PUE opportunities at community scale, linking to larger regional and national analysis
- Disaggregate by sex to understand specific opportunity areas for women
- Identification of interested entrepreneurs
- Identify relevant financing options and introduce to the communities
- Develop curricula based on the needs of the identified stakeholders with a gender and age focus for rural entrepreneurs, training center staff and teachers, and microcredit lenders
- Business and financial literacy skill training related to PUE
- Developing business plans for accessing finance

Area 5: Strategically link centers of productive use within specific sectors, or geographically

- Create a network of training centers and business hubs, with a gender and age-focused curriculum dedicated to the use of energy in high potential sectors/markets. The centers will include a workshop space for hands-on training, maintenance, and on-going innovation in these sectors
- Create New financing options for identified sectors
- Ensure the sectors link beyond to community to opportunities for regional or national scale growth. For example, in agriculture the centers could provide a location for farmers to learn about and obtain ecolabeling accreditation or improve quality to meet criteria for certain high value export markets

9. What role could impact investors play in rural electricity access? Are there any social business models that may be relevant to MCC's rural electrification work?

See EM-ONE in Nigeria, PowerGen in Kenya, Devergy in Tanzania, and RevSol in Mozambique, all

of whom operate as independent power producers using mobile enabled metering to increase access to affordable off-grid power for rural energy consumers. Also see CrossBoundary's mini-grid facility which seeks to increase a range of blended finance, including Impact Investment Financing to the minigrid sector.

Pat Sheikh, Roots of Peace

1. First of all, what is the total amount of this compact? What's the proposed budgetary breakout between strengthening the power sector (hardware), Sonabel and capacity building since all three focus areas are need of major infusions of money.
2. In the discussion section entitled "Project Elements for Discussion", the paper mentions strengthening institutional capacity. Will that include strengthening capacity for SME's? How are you defining strengthening capacity building?
3. Why would the private sector invest in SONABEL if they don't have a good credit rating? How do we get them ready?
4. Not sure what you mean by developing and completing a power sector institutional roadmap study. Do you mean a feasibility study? If so, I would use the latter term, it is more understandable.
5. On page 3, you speak about 5 key reforms. None of the five make reference to training and capacity building. Capacity building is mentioned in the beginning of the document, however. What about the possibility of a training center to ensure institutional change.
6. How do you intend to streamline and standardize the bidding process and contracts for IPPs? I guess you will mention that in the discussion, but it would have been nice to know your thoughts beforehand.
7. With regard to improving private sector participation (top of page 4) how do you intend on improving credit support/guarantees. This would be critical for private sector involvement. Again, I guess this will be discussed at the meeting but to have some idea before the meeting would have been nice.
8. More information is needed on the section of IPPs (page 4) as it pertains to negotiate deals and the credit-worthiness of the off-taker.
9. I suppose that we will discuss these questions on Thursday. However, I would like to respond to 1a now that refer to conditions that are necessary to put the sector on good footing to attract investors- credit worthiness, strong procurement practices and a transparent bidding process.
10. What criteria will you use to support activities that depend on power? Will there be a balance between urban and suburban since most of the population lives in the countryside. Is modern, technologically driven agriculture included in the sectors that will be helped since this sector contributes 30 percent of the GDP and employs over 90 percent of the workforce?

Tim Docking, Refugee Investment Network

General points:

- Looks like another strong and much needed intervention that has the potential to spur economic growth and improve lives in BF;
- The team wisely includes mention of “stability” and “security” as desired outcomes of the project in the opening sentences of the memo, but then doesn’t return to the point again – as it does to connect economic growth with the initiative. (Given local realities, e.g. the surge in violent conflict, growing displacement, and geopolitical concerns, e.g. the spread of Islamism in the Sahel, northern flow of refugees, population growth, climate change, etc... the security/stability point shouldn’t be lost: i.e. How will this project help to improve the bigger regional picture?)\
- In light of above, Is MCC working with Europeans [esp. French] on this project? They are laser focused on the Sahel.
- Will the project take advantage of new MCC regional authority?

Question 2:

- Beyond this advisory committee, what have you heard from the private sector on this point? Ideally (from the private sector point of view) they would be consulted regularly by the team.
- Are you working with OPIC to blend finances for this project? This seems like a great USDFC project.

Question 5:

- Impact investors, funds and facilities need to have concessional capital that they can leverage, so yes, if MCC money could be used as a guarantee that would open doors (see MCE Social Capital for models: <http://www.mcesocap.org/about-us/>)
- Regarding battery storage (The council has discussed this in the past for the Nepal project — What happened with that?) Why not? Why not do a first of a kind project and learn from it? So the end projects is very 21 century, combining innovative finance and technology.

Question 9:

- What role could impact investors play? Call them in and ask investors like the Small Enterprise Assistance Fund (SEAF) what might draw them or their peers into this market? And/or do a road show illustrating and educating investors about how MCC could help de-risk investments and produce a large, measurable impact

Naabia Ofosu-Amaah, The Nature Conservancy

1. **What *policy and institutional reform interventions* are most important and impactful in the power sector?**
 - a. **What conditions should be in place to put the sector on good footing and attract investors?**

Conditions that guide the utility through a process of liberalization (e.g., corporatization, privatization) should be put in place to put the sector on good footing. In addition, many financial institutions are motivated to align with environmental and social and governance (ESG) standards. The following conditions will enhance attraction to investors:

Ensure system-scale planning that considers the direct, indirect and cumulative impacts of energy development throughout the entire region. This will help prioritize low impact system-scale energy planning. For example, system-scale planning can highlight opportunities to select a lower impact mixture of renewable energy, including opportunities to build hybrids alongside existing facilities.

2. In addition to the potential policy and institutional reforms noted above, what else could MCC do to incentivize and attract private investment in the energy sector?

Ensuring that there is a level playing field that allows for true competition among all alternatives, including renewable energy, will help to incentivize and attract private investment. In addition, MCC could look to examples like Argentina's project for renewable energy in rural markets (see below) to consider how to build competitive markets in rural energy services. Creating competition among bundles of rural communities could be one tool for distributed generation. Finally, making the energy sector less ecologically impactful could also attract interested investors.

7. Of the successful models deployed globally for rural electricity access, are there any that you would recommend MCC pursue?

For globally applicable models/tools, Geographic Information Systems (GIS) has been a critical tool in strategically siting renewable energy (an example from India can be found here: <https://escholarship.org/uc/item/4p6886mz>). Furthermore, there is a wealth of spatial information and analytical tools to help developers avoid areas of high ecological value. In doing so, encouraging siting renewable energy on converted lands can avoid the loss of critical ecosystem services and losing important ecological areas. Developers should adopt the tools and science that will drive investments towards lower impact renewable energy options, thus decreasing the risk of the investments and expediting the development of low impact renewable energy (e.g., Hydropower by Design (<https://global.nature.org/content/power-of-rivers>), Development by Design (<https://conservationgateway.org/ConservationPractices/lands/dbd/Pages/default.aspx>)). See an example summarizing this process in Zambia here: <https://tnc.box.com/s/hpplx42zp0nho4q79u9bfp1b37sppcf>. In addition, view the paper "From Paris to Practice" to see a global demonstration of siting renewable energy on converted lands here: <https://iopscience.iop.org/article/10.1088/1748-9326/aaf6e0/meta>.

For specific country examples, please consider Argentina: <https://energy-access.gnesd.org/cases/28-argentina-project-for-renewable-energy-in-rural-markets-permer.html> and the Dominican Republic: <https://www.irena.org/newsroom/articles/2016/Jul/Dominican-Republics-Roadmap-to-a-Renewable-Future>. An example of principles for low impact solar siting and design (from North Carolina, US) can also be found here:

http://conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/edc/Documents/ED_TNCNCPrinciplesofSolarSitingandDesignJan2019.pdf.

8. **Given that increasing electricity access is necessary but not sufficient for generating significant economic impact with rural poor or marginalized populations, MCC is considering options to include a productive use of electricity (PUE) component to the Grid Development and Access project.**
 - a. **How do we best identify pockets of elevated economic potential and effectively support them through a PUE intervention?**

Through community scale assessments, it could be possible to identify business opportunities at the intersection of energy and agriculture or processing of ecologically responsible products (i.e., making sure the ecologically mindful agriculture is a priority for access to electricity).

9. **What role could impact investors play in rural electricity access? Are there any social business models that may be relevant to MCC's rural electrification work?**

The Nature Conservancy (TNC) has seen that impact investors are interested in combining investments in low impact power generation with conservation. Please find an example from NatureVest, TNC's conservation investing unit, in Kenya here:

<https://tnc.box.com/s/jwfvafxuwv76x6d04oiivhmze0gmvg7>.

Endnotes

1. Eberhard, Anton, Katharine Gratwick, Elvira Morella, and Pedro Antmann. 2016. Independent Power Projects in Sub-Saharan Africa: Lessons from Five Key Countries. Directions in Development. Washington, DC: World Bank. doi:10.1596/978-1-4648-0800-5. License: Creative Commons Attribution CC BY 3.0 IGO